

Listing of Claims:

1. (Currently Amended) Method for visualisation of a 3-dimensional (3-D) ~~scene model of a 3-D image comprising;~~ with a 3-D display plane comprising 3-D pixels by emitting and/or transmitting light into certain directions by said 3-D pixels, thus visualising 3-D scene points, characterized in that said 3-D scene model is converted into a plurality of 3-D scene points, said 3-D scene points are fed at least partially to at least one of said 3-D pixels, said at least one 3-D pixel calculates its contribution to the visualisation of a 3-D scene point

converting a 3-D scene model into a plurality of 3-D scene points;

providing at least a portion of the plurality of 3-D scene points to a 3-D display plane comprising 3-D pixels that are directionally modulated;

determining at each of the 3-D pixels a contribution of light from the 3-D pixel to generate at least in part a scene point of the plurality of 3-D scene points; and

performing at least one of emitting and transmitting the light by each of the 3-D pixels that is determined to contribute to the scene point.

2. (Original) Method according to claim 1, characterized in that light is emitted and/or transmitted by 2-D pixels comprised within said 3-D pixels, each 2-D pixel directing light into a different direction contributing light to a scene point of said 3-D scene model.

3. (Original) Method according to claim 1, characterized in that said 3-D scene points are provided sequentially, or in parallel, to said 3-D pixels.

4. (Currently Amended) Method according to claim 1, characterized in that the determination of the contribution of light of a 3-D pixel to a certain 3-D scene point is made previous to the provision of said 3-D scene points to said 3-D pixels.

5. (Original) Method according to claim 1, characterized in that the contribution of light of a 3-D pixel to a certain 3-D scene point is calculated within one 3-D pixel of one row or of one column previous to the provision of said 3-D scene points to the remaining 3-D pixels of a row or a column, respectively.

6. (Original) Method according to claim 1, characterized in that a 3-D pixel outputs an input 3-D scene point to at least one neighbouring 3-D pixel.

7. (Original) Method according to claim 1, characterized in that each 3-D pixel alters the co-ordinates of a 3-D scene point prior to putting out said 3-D scene point to at least one neighbouring 3-D pixel.

8. (Original) Method according to claim 1, characterized in that in case more than one 3-D scene point needs the contribution of light from one 3-D pixel, the depth information of said 3-D scene point is decisive.

9. (Currently Amended) Method according to claim 1, characterized in that ~~said 2-D~~ pixels of the 3-D display plane transmit and/or emit light only within one plane.

10. (Original) Method according to claim 1, characterized in that colour is incorporated by spatial or temporal multiplexing within each 3-D pixel.

11. (Currently Amended) A 3-D display device, comprising:

~~in particular for a method according to claim 1, comprising:~~ a 3-D display plane with 3-D pixels, said 3-D pixels comprise an input port and an output port for receiving and putting out 3-D scene points of a 3-D scene, each of said 3-D pixels ~~at least partially~~ comprise a control unit for calculating their own contribution to the visualisation of a 3-D scene point representing said 3-D scene.

12. (Original) 3-D display device according to claim 11, characterized in that said 3-D pixels are interconnected for parallel and serial transmission of 3-D scene points.

13. (Original) 3-D display device according to claim 11, characterized in that said 3-D pixels comprise a spatial light modulator with a matrix of 2-D pixels.

14. (Currently Amended) 3-D display device according to claim ~~13~~14, characterized in that said 3-D pixels comprise a point light source, providing said 2-D pixel with light.

15. (Currently Amended) 3-D display device according to claim ~~13~~14, characterized in that said 3-D pixels comprise registers for storing a value determining which ones of said 2-D pixels within said 3-D pixel contribute light to a 3-D scene point.

16. (New) The method of claim 1, wherein the determining of the contribution comprises determining whether a current 3-D scene point is closer to a viewer than a past 3-D scene point.

17. (New) The 3-D display device of claim 11, wherein the control unit determines whether a current 3-D scene point is closer to a viewer than a past 3-D scene point.